1. An interlevel dielectric structure comprising:

a first dielectric layer situated on a semiconductor substrate, said first dielectric layer having an upper surface;

a plurality of lines comprised of a conductive material extending along said upper surface of said first dielectric layer, each line of said plurality of lines having upper and lower surfaces, and adjacent lines of said plurality of lines having spaces situated therebetween, the lower surfaces of each line of said plurality of lines being in contact with said upper surface of said first dielectric layer;

a second dielectric layer above both said plurality of lines and said first dielectric layer, said second dielectric layer having a lower surface in contact with the upper surface of each line of said plurality of lines; and

a dielectric material situated in said space between adjacent lines of said plurality of lines, said dielectric material not extending over the upper surface of each line of said plurality of lines, the upper surface of said dielectric material being higher than the upper surface of each line of said plurality of lines, the lower surface of said dielectric material being lower than the lower surface of each line of said plurality of lines.

2. The interlevel dielectric structure as defined in Claim 1, wherein said dielectric material comprises PTFE.

3. The interlevel dielectric structure as defined in Claim 1, wherein at least one of the first and second dielectric layers comprises silicon dioxide.

4. The interlevel dielectric structure as defined in Claim 1, wherein said conductive material is selected from the group consisting of polysilicon, aluminum, copper, tungsten, and multiple layers of TiN/Al/TiN, TiN/Al/Ti, W/TiN/Ti, or any combinations thereof.

5. The interlevel dielectric structure as defined in Claim 1, where the dielectric material has a dielectric constant of less than about 3.6.

6. An interlevel dielectric structure comprising:

a first dielectric layer situated on a semiconductor substrate, said first dielectric layer having an upper surface;

a plurality of lines comprised of a conductive material extending along said upper surface of said first dielectric layer; wherein:

each line of said plurality of lines has both a upper surface and a lower surface;

adjacent lines of said plurality of lines have spaces situated therebetween;

the lower surfaces of each line of said plurality of lines is in contact with said upper surface of said first dielectric layer; and

the upper surface of at least one line of said plurality of lines has thereon a layer of a refractory metal nitride;

a second dielectric layer above both said plurality of lines and said first dielectric layer, said second dielectric layer having a lower surface in contact with the upper surface of each line of said plurality of lines; and

a dielectric material situated in said space between adjacent lines of said plurality of lines, said dielectric material not extending over the upper surface of each line of said plurality of lines, the upper surface of said dielectric material being higher than the upper surface of each line of said plurality of lines, the lower surface of said dielectric material being lower than the lower surface of each line of said plurality of lines.

7. The interlevel dielectric structure as defined in Claim 6, wherein said layer of refractory metal nitride has an electrical insulation layer thereon, said electrical insulation layer having thereon said second dielectric layer.

8. The interlevel dielectric structure as defined in Claim 7, wherein said electrical insulation layer is a silicon dioxide layer.

9. The interlevel dielectric structure as defined in Claim 6, wherein said refractory metal nitride is titanium nitride.

10. The interlevel dielectric structure as defined in Claim 6, wherein said dielectric material comprises PTFE.

11. The interlevel dielectric structure as defined in Claim 6, wherein at least one of the first and second dielectric layers comprises silicon dioxide.

12. The interlevel dielectric structure as defined in Claim 6, wherein said conductive material is selected from the group consisting of polysilicon, aluminum, copper, tungsten, and multiple layers of TiN/Al-TiN, TiN/Al/Ti, W/TiN/Ti, or any combinations thereof.

13. The interlevel dielectric structure as defined in Claim 6, where the dielectric material has a dielectric constant of less than about 3.6.

14. An interlevel dielectric structure comprising:

a first dielectric layer situated on a semiconductor substrate, said first dielectric layer having an upper surface;

a plurality of lines comprised of a conductive material extending along said upper surface of said first dielectric layer; wherein:

each line of said plurality of lines has both a upper surface and a lower surface;

adjacent lines of said plurality of lines have spaces situated therebetween;

the lower surfaces of each line of said plurality of lines is in contact with said upper surface of said first dielectric layer;

the upper surface of at least one line of said plurality of lines has thereon a layer of titanium nitride;

said layer of titanium nitride has thereon a silicon dioxide layer; and

said silicon dioxide layer has thereon said second dielectric layer;

a second dielectric layer above both said plurality of lines and said first dielectric layer, said second dielectric layer having a lower surface in contact with the upper surface of each line of said plurality of lines; and

a dielectric material situated in said space between adjacent lines of said plurality of lines, said dielectric material not extending over the upper surface of each line of said plurality of lines, the upper surface of said dielectric material being higher than the upper surface of each line of said plurality of lines, the lower surface of said dielectric material being lower than the lower surface of each line of said plurality of lines.

15. The interlevel dielectric structure as defined in Claim 14, wherein said dielectric material comprises PTFE.

16. The interlevel dielectric structure as defined in Claim 14, wherein at least one of the first and second dielectric layers comprises silicon dioxide.

17. The interlevel dielectric structure as defined in Claim 14, wherein said conductive material is selected from the group consisting of polysilicon, aluminum, copper, tungsten, and multiple layers of TiN/Al/TiN, TiN/Al/Ti, W/TiN/Ti, or any combinations thereof.

18. The interlevel dielectric structure as defined in Claim 14, where the dielectric material has a dielectric constant of less than about 3.6.